

PATENT COOPERATION TREATY

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INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)



REC'D 02 MAY 2006

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Applicant's or agent's file reference PCT-2004-02	FOR FURTHER ACTION	See Form PCT/IPEA/416
International application No. PCT/KR2004/003456	International filing date(day/month/year) 27 DECEMBER 2004 (27.12.2004)	Priority date (day/month/year) 31 DECEMBER 2003 (31.12.2003)
International Patent Classification (IPC) or national classification and IPC H04L 9/00(2006.01)i		
Applicant INCA Internet Co.,Ltd.		

- This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.
- This REPORT consists of a total of 3 sheets, including this cover sheet.
- This report is also accompanied by ANNEXES, comprising:
 - ☒ (sent to the applicant and to the International Bureau) a total of 1 sheets, as follows:
 - ☒ sheets of the description, claims and/or drawings, which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).
 - ☐ sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.
 - ☐ (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) _____ containing a sequence listing and/or tables related thereto, in electronic form only, as indicated in the Supplemental Box relating to Sequence Listing (see Section 802 of the Administrative Instructions).
- This report contains indications relating to the following items:
 - ☒ Box No. I Basis of the report
 - ☐ Box No. II Priority
 - ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
 - ☐ Box No. IV Lack of unity of invention
 - ☒ Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
 - ☐ Box No. VI Certain documents cited
 - ☐ Box No. VII Certain defects in the international application
 - ☐ Box No. VIII Certain observations on the international application

Date of submission of the demand 04 JULY 2005 (04.07.2005)	Date of completion of this report 14 APRIL 2006 (14.04.2006)
Name and mailing address of the IPEA/KR  Korean Intellectual Property Office 920 Dunsan-dong, Seo-gu, Daejeon 302-701, Republic of Korea Facsimile No. 82-42-472-7140	Authorized officer LEE, Dong Hwan Telephone No. 82-42-481-5755 

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/KR2004/003456

Box No. I Basis of the report

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.

- ☐ This report is based on translations from the original language into the following language _____ which is the language of a translation furnished for the purposes of:
- ☐ international search (under Rules 12.3 and 23.1(b))
 - ☐ publication of the international application (under Rule 12.4)
 - ☐ international preliminary examination (under Rules 55.2 and/or 55.3)

2. With regard to the elements of the international application, this report is based on (replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report):

- ☐ the international application as originally filed/furnished
- ☒ the description:
 pages _____ 1 ~ 11 _____ as originally filed/furnished
 pages* _____ received by this Authority on _____
 pages* _____ received by this Authority on _____
- ☒ the claims:
 pages _____ 12, 14 _____ as originally filed/furnished
 pages* _____ as amended (together with any statement) under Article 19
 pages* _____ 13 _____ received by this Authority on 14/04/2006
 pages* _____ received by this Authority on _____
- ☐ the drawings:
 pages _____ as originally filed/furnished
 pages* _____ received by this Authority on _____
 pages* _____ received by this Authority on _____
- ☐ the sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing.

3. ☒ The amendments have resulted in the cancellation of:

- ☐ the description, pages _____
- ☒ the claims, Nos. _____ 5, 6, 7 _____
- ☐ the drawings, sheets _____
- ☐ the sequence listing (specify): _____
- ☐ any table(s) related to sequence listing (specify): _____

4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

- ☐ the description, pages _____
- ☐ the claims, Nos. _____
- ☐ the drawings, sheets _____
- ☐ the sequence listing (specify): _____
- ☐ any table(s) related to sequence listing (specify): _____

* If item 4 applies, some or all of those sheets may be marked "superseded."

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/KR2004/003456

Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	1 ~ 4, 8 ~ 10	YES
	Claims	None	NO
Inventive step (IS)	Claims	1 ~ 4, 8 ~ 10	YES
	Claims	None	NO
Industrial applicability (IA)	Claims	1 ~ 4, 8 ~ 10	YES
	Claims	None	NO

2. Citations and explanations (Rule 70.7)

Reference is made to the following documents:

D1 = KR20020086434 A(2002.11.18)

D2 = KR20020001190 A(2002.06.15)

The invention according to claims 1~4, 8~10 relates to a security system wherein the traffic packet is permitted to go through or to bypass the firewall according to whether the destination port of a packet of inbound traffic is in the internal permitted port storage.

D1 discloses a hacking prevention system for embodying a firewall system comprising a packet hooking module, a session state analyzing module, an attack detection module, a packet discard module, a transmitting module.

D2 reveals a security system for having a reinforced protection function for internal resources in networks and an operating method thereof.

But none of the above documents teach or fairly suggest the feature of present invention that incoming packet is permitted to go through or to bypass the firewall according to whether the destination port is in permitted port storage.

It is thus believed that claims 1~4, 8~10 meet the criteria set out in PCT Article 33(2)-(4)

munication is permitted by the firewall, and registering the extracted information in an internal permitted program storage;
the third step of, if information about the server port being used is extracted using the program registered in the internal permitted program storage at the first step, registering the information about the extracted server port in internal permitted port storage;
the fourth step of determining whether a destination port of a packet of inbound traffic has been registered in the internal permitted port storage;
the fifth step of, if, as a result of the determination at the fourth step, the destination port has not been registered, transmitting the packet of inbound traffic to the firewall and
the sixth step of, if, as a result of the determination at the fourth step, the destination port has been registered, allowing the corresponding packet to bypass the firewall.

[5] (cancelled)

[6] (cancelled)

[7] (cancelled)

[8] The network security method as set forth in claim 4, wherein the information about the program, which is extracted and registered at the second step, includes information about a program name, an entire path of the program, and a program Message Digest 5 (MD5) hash value.

[9] The network security method as set forth in claim 4, wherein the information of the server port, which is extracted and registered at the third step, includes information about an entire path of the program, a protocol, and a port.

[10] A computer-readable recording medium for performing a network security method using a firewall, the medium storing a program for executing the method, the method comprising: